

REMARKS

Claims 1-2, 6-7, 11-14, 16-20 and 22-24 remain pending in the above-identified application and stand ready for further action on the merits. In the instant amendment, claims 1-2 are amended and claims 8-10 are canceled.

The amendments made to the pending claims 1-2 do not incorporate new matter into the application as originally filed. Claims 1-2 as instantly amended incorporate subject matter previously recited in claims 9-10, and thus the amendment to claims 1-2 finds support in prior claims 9-10, and also in the specification at page 21, line 8 and in Table 2 at page 36 of the specification, wherein the surfactant B-4 (i.e., lauryl alcohol adduct of PO₃) has an alkylene oxide group present in an average of 5 moles per 1 mole of the alcohol (*see* Table 2).

Dependent Claims 8-10 have been canceled herein to prevent any redundancy and/or inconsistency with newly amended claim 1, wherein the surfactant B is now positively recited as being "a water-soluble alcohol alkylene oxide adduct containing an alkylene oxide group having 2 to 4 carbons in an average amount of 5 to less than 150 moles per 1 mole of the alcohol."

Accordingly, entry of the instant amendment is respectfully requested at present, as is favorable action on the merits.

Provisional Request for Interview

Should the instant reply not result in an allowance of claims 1-2, 6-7, 11-14, 16-20 and 22-24 under consideration at present, the undersigned respectfully requests that the Examiner grant/schedule a personal interview at the Examiner's earliest convenience, by contacting the

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undersigned (Mr. John W. Bailey, Reg. No. 32,881, at the direct telephone number of 703-205-8031).

It is submitted that such an interview would be helpful in allowing Applicants to more distinctly and particularly discuss the remarks set forth herein with the Examiner, and explain why the cited art is incapable of rendering pending claims 1-2, 6-7, 11-14, 16-20 and 22-24 unpatentable, and thereby help expedite further prosecution of this application to allowance.

Claim Rejections – 35 USC § 103(a)

Claims 1-2, 7-10, 12-14, 16-20 and 22-24 have been rejected under the provisions of 35 USC § 103(a) as being unpatentable over **Zhang et al. US '268** (US 6,417,268) in view of **Anderson et al.** (Re. 28474).

Claims 6 and 11 have been rejected under the provisions of 35 USC § 103(a) as being unpatentable over **Zhang et al. US '268** in view of **Honig et al. US '766** (US 5,167,766).

Reconsideration and withdraw of each of the above rejections is respectfully requested based on the following considerations.

Legal Standard for Determining Prima Facie Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally,

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the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

"In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the

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knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Supreme Court of the United States has recently held that the teaching, suggestion, motivation test is a valid test for obviousness, but one which cannot be too rigidly applied. See *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 11 (U.S. April 30, 2007).

The Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. April 30, 2007) reaffirmed the Graham factors in the determination of obviousness under 35 U.S.C. § 103(a). The four factual inquiries under Graham are:

- (a) determining the scope and contents of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating evidence of secondary consideration.

Graham v. John Deere, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

The Court in *KSR Int'l Co. v. Teleflex, Inc.*, *supra.*, did not totally reject the use of "teaching, suggestion, or motivation" as a factor in the obviousness analysis. Rather, the Court

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recognized that a showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a).

Even so, the Court in *KSR Int'l Co. v. Teleflex. Inc.*, *ibid.*, rejected a rigid application of the "teaching, suggestion, or motivation" (TSM) test, which required a showing of some teaching, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art to combine the prior art elements in the manner claimed in the application or patent before holding the claimed subject matter to be obvious.

Distinctions Over the Cited Art

Pending Claims 1-2, 7, 12-14, 16-20 and 22-24

The cited primary Zhang et al. US '268 reference discloses surfactants such as salts of alkyl sulfates, sulfonates and carboxylates (e.g., *see* at column 9, lines 62-67 of Zhang et al.) but it completely fails to disclose or teach anything about "a water-soluble alcohol alkylene oxide adduct containing an alkylene oxide group having 2 to 4 carbons in an average amount of 5 to less than 150 moles per 1 mole of the alcohol," as is now positively recited and claimed in each of pending independent claims 1-2.

Even if one assumes *arguendo*, that the cited secondary reference of Anderson et al. discloses an alcohol alkylene oxide adduct (e.g., *see* column 5, lines 52-66 of Anderson et al.) . this does not mean that the teachings of Anderson et al. can simply be combined with the teachings of Zhang et al., to arrive at the various limitations recited in the pending claims.

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Instead, in order to establish obviousness, there must be some motivation to combine the reference of Zhang et al. US '268 with Anderson et al. Absent such motivation in the cited art, a rejection over the two references under 35 USC § 103(a) is not sustainable.

The cited Zhang et al. reference at column 4, lines 7-9 thereof discloses that *"the resultant HAP is in an aqueous homogeneous dispersion, which does not contain any oil, and is highly desirable in a papermaking process...."* (Emphasis Added; see column 4, lines 7-9 of Zhang et al.)

In contrast, to such clear teachings in the primary Zhang et al. reference, the cited secondary reference of Anderson et al. utilizes a water-in-oil emulsion. (See abstract of Anderson et al.)

Accordingly, since the teachings Anderson et al. clearly would lead one to utilize a water-in-oil emulsion, it follows that the teachings of Anderson et al. are completely inapposite with the teachings of Zhang et al., which provides that its *"HAP is in an aqueous homogeneous dispersion, which does not contain any oil."*

As such, it is submitted that the USPTO's combinational theory of obviousness (*i.e.*, that the instant invention is obvious over the teachings of Zhang et al. in view of Anderson et al.) must fail, as it requires acting in a manner that goes directly against the teachings of the cited Zhang et al. reference in order to allegedly reach the instant invention as claimed. However, *no motivation* can be gleaned from the cited Zhang et al. reference for doing the same, and no such motivation can be interpreted as arising from the teachings of Anderson et al., without also simultaneously destroying and/or going directly against the teachings of Zhang et al.

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Indeed, to the extent that any motivation exists, it is instead obtained from the instant specification and claims, based on an improper application of hindsight reconstruction on the USPTO's part. As stated by the Federal Circuit in the case of In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine]" as an "essential evidentiary component of an obviousness holding"); In re Roufflet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("the Board must identify specifically . . . the reasons one of ordinary skill in the art would have been motivated to select the references and combine them"); In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]"); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297, 227 USPQ 657, 667 (Fed. Cir. 1985) (district court's conclusion of obviousness was error when it "did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination"). See also Graham, 383 U.S. at 18, 148 USPQ at 467 ("strict observance" of factual predicates to obviousness conclusion required). Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. See, e.g., Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."). In this case, the Board fell into the hindsight trap.

Accordingly, for the above reasons each of pending independent claims 1 and 2 and the remaining dependent claims that depend from each of claims 1 and 2 are fully patentable over and non-obvious over the cited combination of Zhang et al. in view of Anderson et al.

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Pending Claims 6 and 11

Pending claims 6 and 11 each depend from claim 1. As such, since claims 6 and 11 necessarily include all of the limitations of independent claim 1, it follows that claims 6 and 11 are also patentable over the cited combination of Zhang et al. in view of Anderson et al. that was been applied against claim 1, as well as the rejection over Zhang et al. US '268 in view of Honig et al. US '766, which has been more specifically applied against claims 6 and 11.

The teachings of Honig et al. US '766 are incapable of curing the incongruence that arises from the asserted combination of Zhang et al. in view of Anderson et al., and Honig et al. US '755 is also incapable of curing the above-noted deficiency of Zhang et al. (*i.e.*, Zhang et al. fails to teach or provide for the specific surfactant B recited in each of pending claims 1 and 2).

As such it intuitively follows that, *even if arguendo*, Honig US '766 discloses "a drainage and retention system used in papermaking comprising crosslinked or uncrosslinked organic microbeads and a high molecular weight polymer and/or polysaccharide" as stated by the Examiner at page 6, bottom paragraph, of the outstanding office action, such teachings in Honig et al. when combined with those of Zhang et al. (*or even Zhang et al. in view of Anderson et al.*) are insufficient to render obvious any one of applicants pending claims 1-2, 6-7, 11-14, 16-20 and 22-24.

The outstanding rejections of record are not sustainable for the reasons set forth hereinabove. Any contentions of the USPTO to the contrary must be reconsidered at present.

CONCLUSION

Based on the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance in the matter of the instant application, clearly indicating that each of pending claims 1-2, 6-7, 11-14, 16-20 and 22-24 are allowed and patentable under the provisions of title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

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